SR 305 Winslow Ferry to Hostmark Street – Safety Improvements

Bainbridge Island Council Meeting
Sep. 17, 2019

Michele Britton, P.E., Project Engineer
Ron Landon, P.E., Project Development Engineer

Welcome and agenda

Presentation

- Project overview and history
- Roundabout information
- Day Road Design Alternative Concepts and Costs
- Next Steps

SR 305, Winslow to Hostmark

Legislative Description

- Constructs safety and mobility improvements on SR 305 from the Bainbridge Ferry Terminal to Hostmark Street.

Purpose and Need:

Congestion along the SR 305 Corridor from Poulsbo to the Winslow Ferry terminal affects travel times, traveler safety and economic vitality. Performance based strategies are needed to:

- Improve corridor safety and mobility
- Address the constraints of the existing Agate Pass bridge
- Provide multi-modal incorporation through and across the corridor
- Increase the ability to move people and improve the corridor capacity overall
- Provide travel time reduction and reliability
- Address access needs for adjacent properties
- Protect and enhance the environment

Project study history

1997 – SR 305 Corridor Analysis Major Investment Study

2008 – SR 305 Corridor Vision

2011 – SR 305 Corridor Enhanced Transit Alternatives Analysis Technical Study

2013 – Washington State Ferries Origin-Destination Travel Survey Report

2013/14 – Suquamish Development Traffic Study

2014 – SR 305 Suquamish Way Intersection Improvements Project Phase 1 Report

2015 – Johnson Road – SR 305 Intersection Feasibility Study

2016 –

- Kitsap Transit Long Range Plan
- Kitsap County Comprehensive Plan
- City of Poulsbo Comprehensive Plan
- City of Bainbridge Island Wide Transportation Plan Update

2017 –

- Kitsap Transit Comprehensive Route Analysis: Existing Conditions
- Kitsap Transit SR 305 Needs and Opportunities Study

HIGHEST PERFORMING IMPROVEMENTS

Score	Improvements	Construction Phase
Highest	Suquamish Way **Roundabout***	3
	Day Road	2
	Adas Will/Agatewood Road	2
	Johnson Road	1
	Port Madison Road	2
	Totten Road	3
	Seminole Road	2
	Masi Shop/Sandy Hook	3
	Noll Road	2
	Sol Vei/Tollefson/Delate	2
	Sportsman Club Road Left Turn Lane	3
	Suquamish Way **Left Turn Lane***	3
Lower	Access Modifications	3

**1 of the 2 Suquamish Way options will be implemented.*

$36.5M Total Budget

- Scores based on achieving corridor goals
- Implementation schedule based on readiness and budget availability

Corridor Performance Goals

Congestion
Reduce congestion and improve mobility

Transit
Improve transit travel time and reliability

Access
Manage needs through access management

Safety
Improves safety

Non-motorized
Improves non-motorized safety

Environment
Improves the environment

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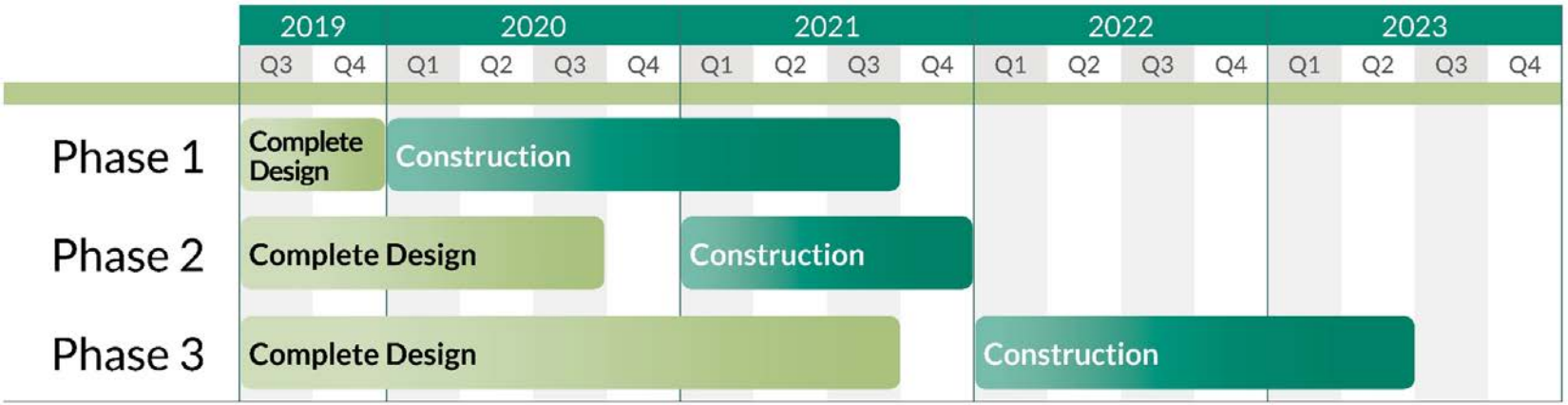
Updated Delivery Plan – Schedule

1 Project 1: Johnson Road

2 Project 2: Day Rd
Project 3: West Port Madison/Adas Will/Agatewood

3 Project 4: Suquamish RBT or Totten Rd



Why Roundabouts?

- ✓ Improved Safety for all modes of Transportation.
- ✓ Improved Mobility.
- ✓ Successful implementation of over 100 roundabouts statewide.

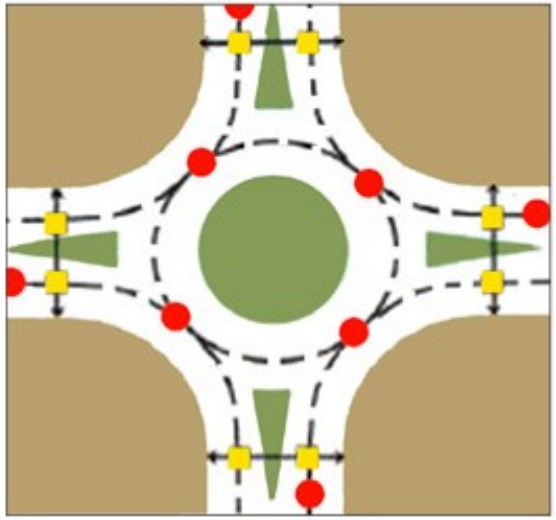
Roundabout benefits

- Geometry reduces speeds at intersections. (goal is 20-25 mph)
- Reduced speed differential between vehicles and in-lane cyclists. (< 12mph)
- Control traffic flow (No light to beat!) and improve safety performance (WSDOT study- over 70% reduction in fatal and injury collisions)

Roundabout Benefits

- Reduces conflict points.

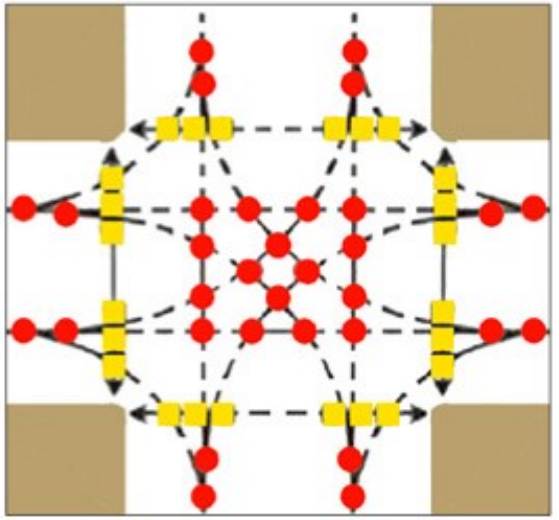
Roundabout



8 Vehicle conflicts

8 Pedestrian conflicts

Intersection

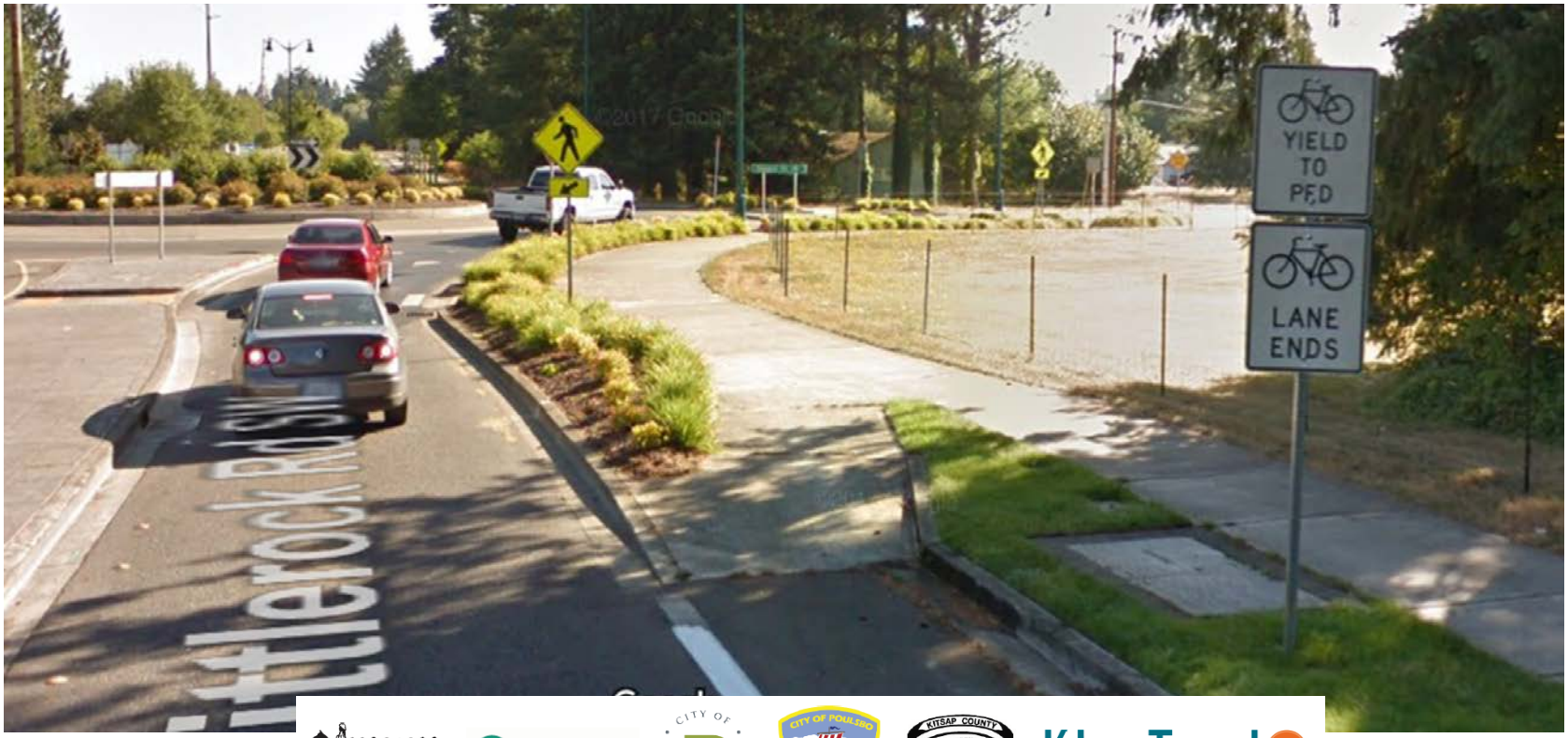


32 Vehicle conflicts

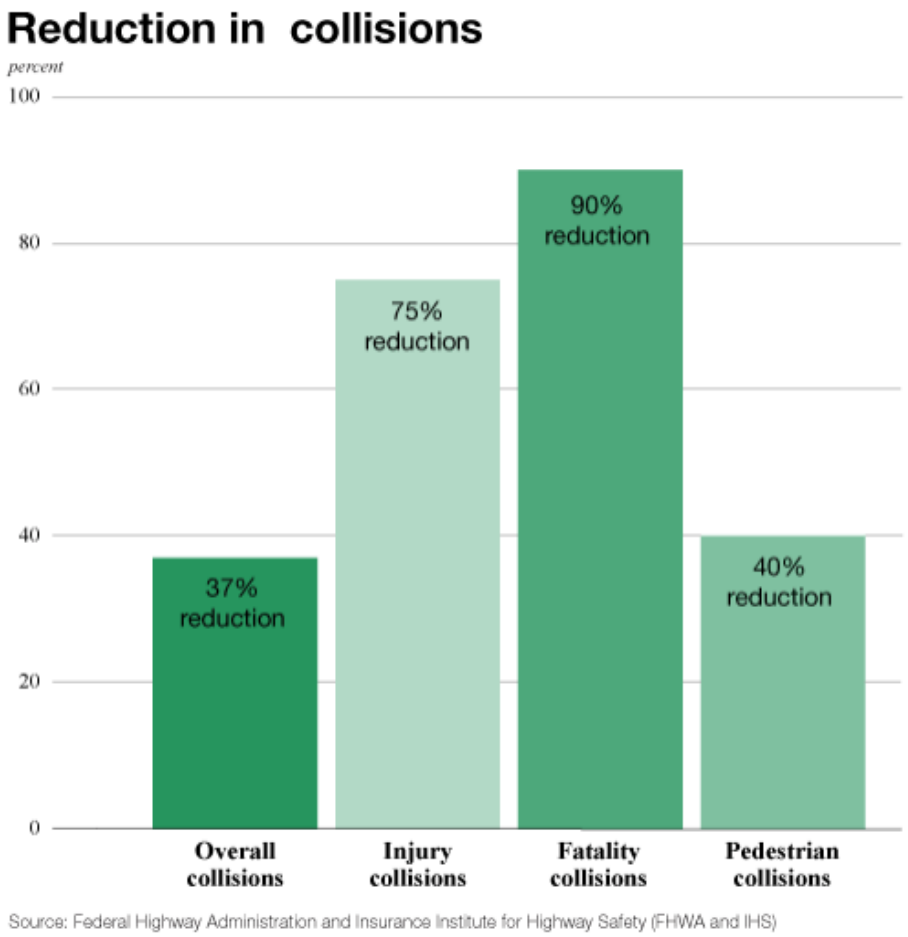
24 Pedestrian conflicts

Roundabout benefits

- Provides separation between cars and non-motorized travelers.
- Provides options for cyclists. Stay in lane or use mixed use path and crosswalk.
- Reduces crossing lengths for pedestrians and non-motorized users.



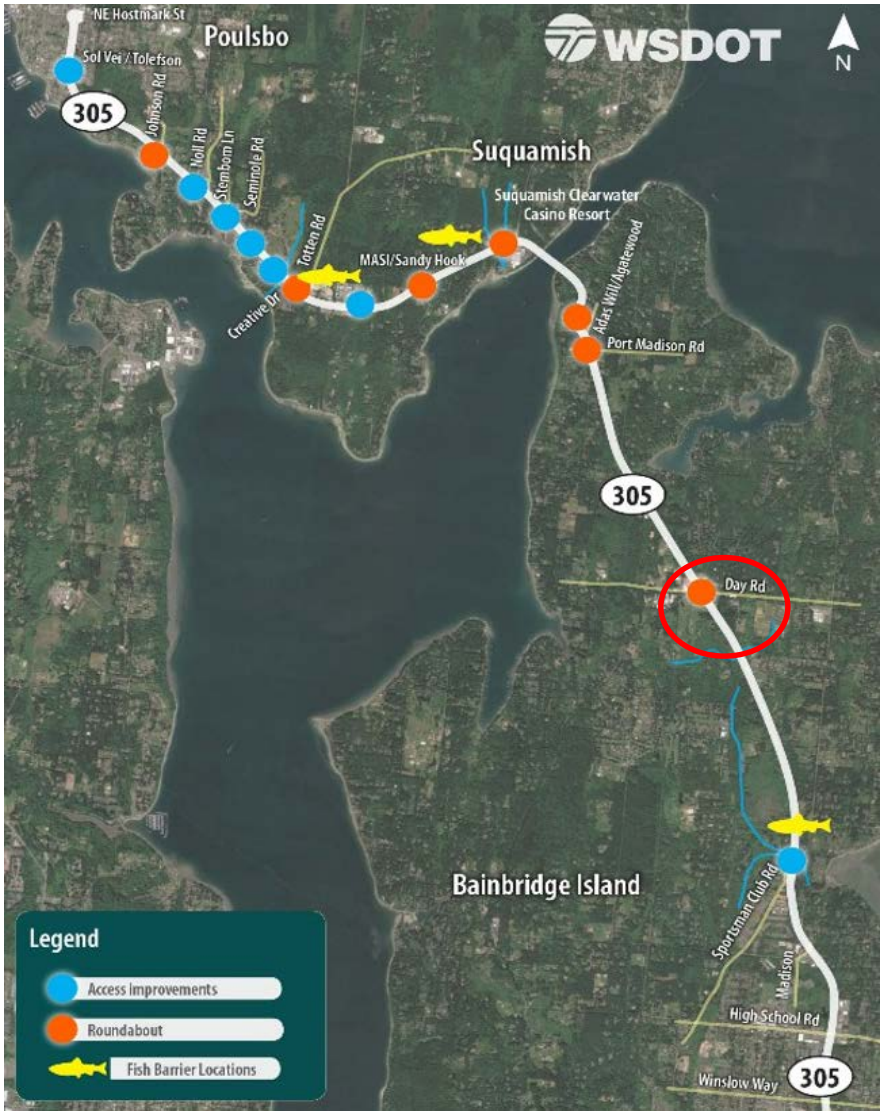
Roundabout Benefits



Source: Federal Highway Administration and Insurance Institute for Highway Safety (FHWA and IHS)

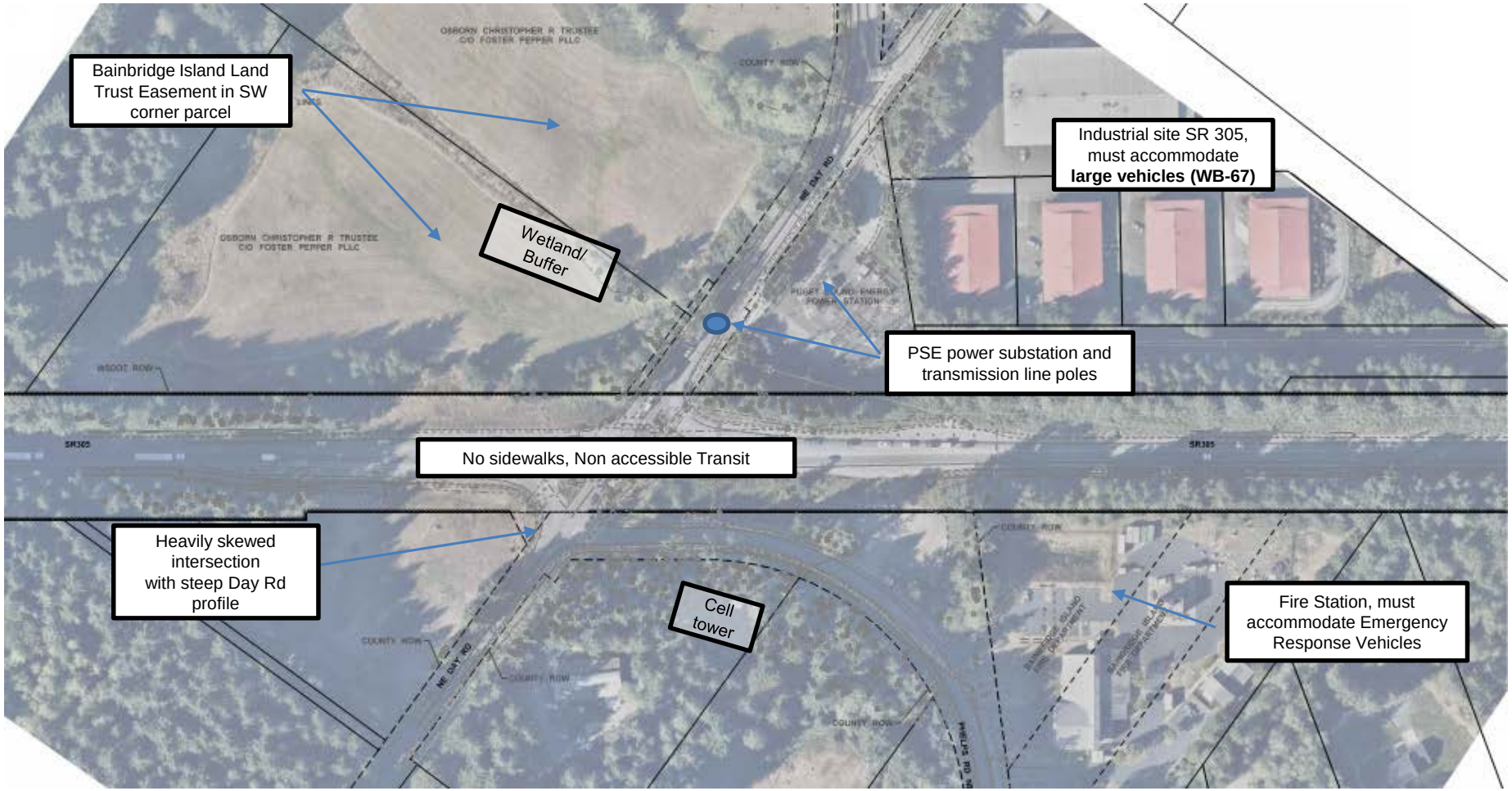
Day Road –

Alternative concepts



Day Road

Day Road – Existing Intersection / Signalized



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Stormwater control and treatment requirements

Stormwater management objectives:

- Maintain safe driving conditions and protect the roadway
- Manage stormwater discharges to protect the environment

Stormwater is managed by **Controlling Runoff Flows** and providing **Water Quality Treatment** prior to discharging it to the natural system.

Each **Threshold Discharge Area (TDA)** within a project has a separate natural discharge location.

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Stormwater control and treatment requirements

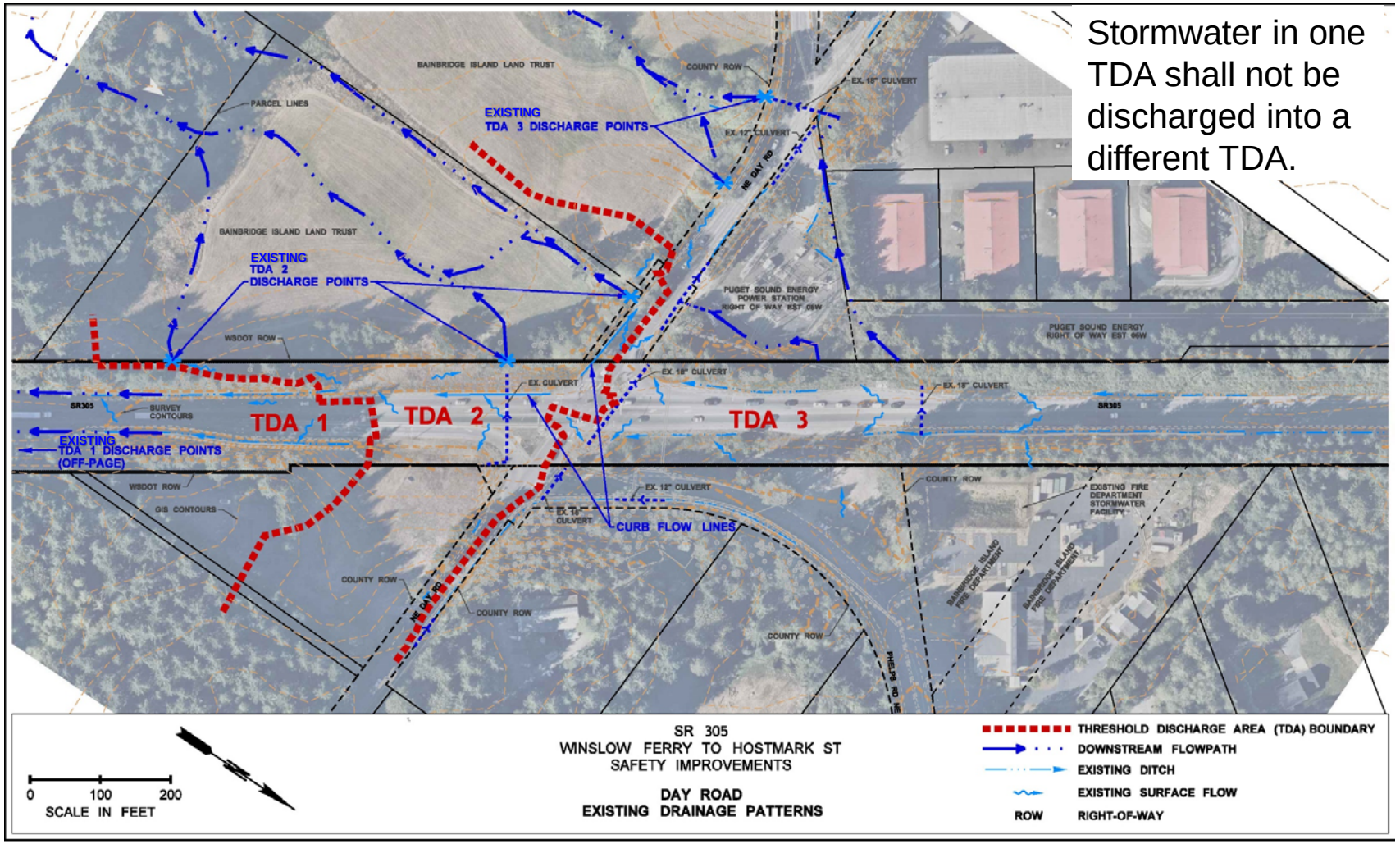
Stormwater Minimum Requirements:

- Maintain the Natural Drainage Patterns
- Provide **Water Quality Treatment** to remove pollutants
- Provide **Flow Control** to prevent impacts from increased stormwater runoff volumes and flow rates on streams
- Protect Wetlands

Project Thresholds:

- All projects must maintain the natural drainage patterns.
- All TDA's within a project adding 5,000 square feet or more of new pollution generating impervious surface (surfaces vehicles will be driving on) must provide water quality treatment.
- All TDA's within a project adding 10,000 square feet of new impervious surface must provide flow control.

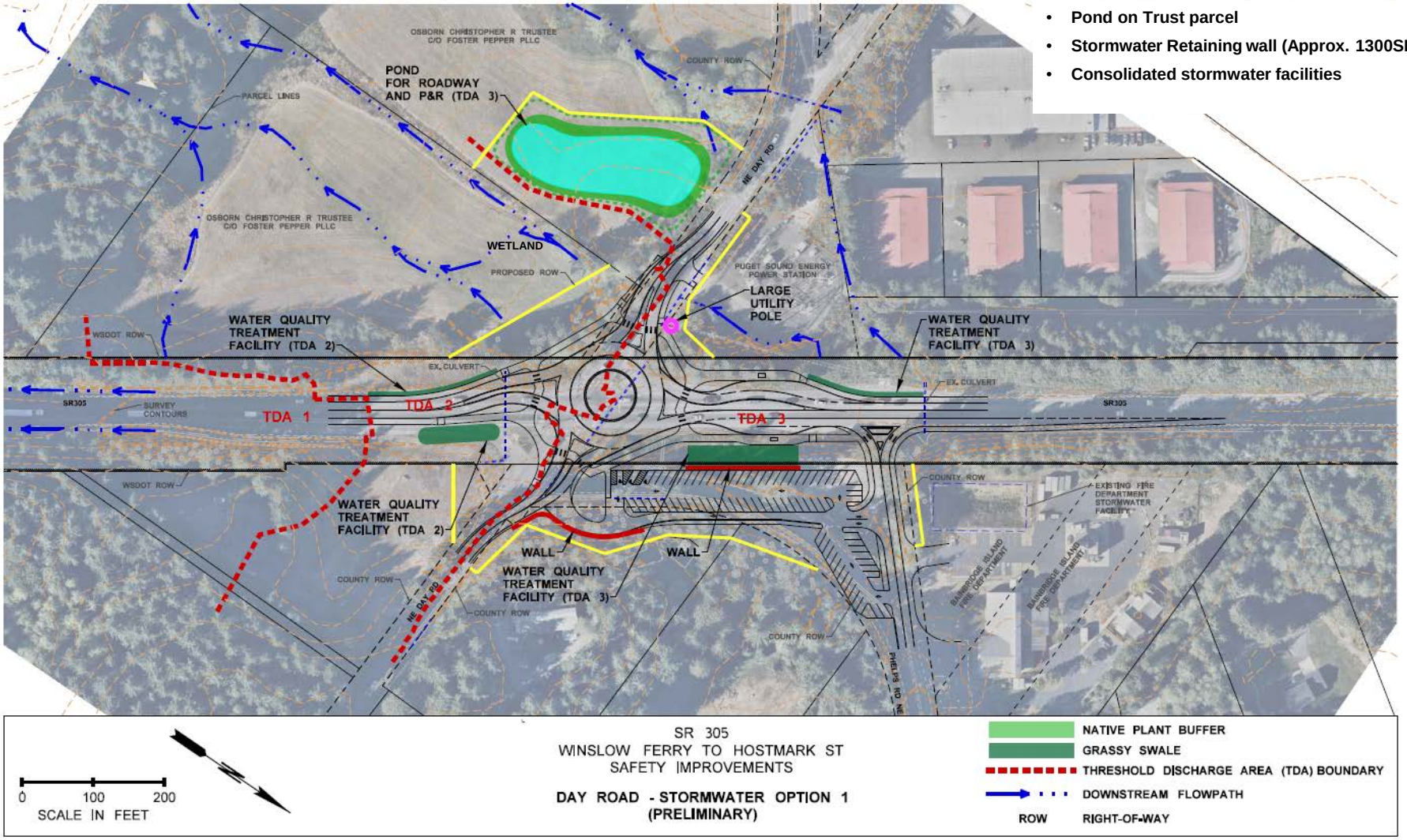
Day Road – Existing Drainage Patterns



Stormwater in one TDA shall not be discharged into a different TDA.

Day Road – Drainage Option 1 – Pond Only

- **Pond on Trust parcel**
- **Stormwater Retaining wall (Approx. 1300SF)**
- **Consolidated stormwater facilities**



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Proposed Delivery Plan Update – Option 1 - Pond

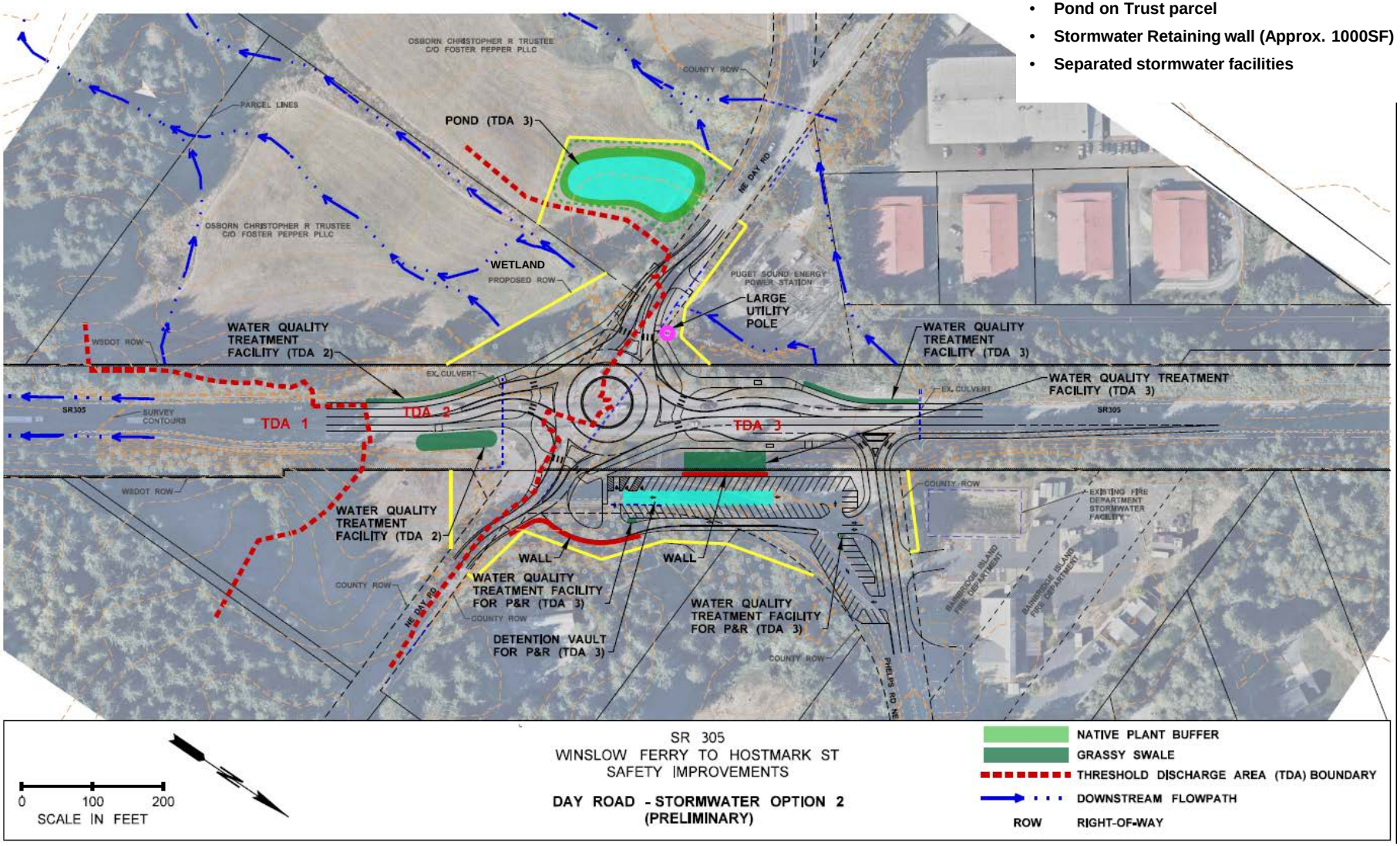
Performance Score	INTERSECTION	Total Estimated Project Cost	Project	Phase 1	Phase 2	Phase 3	Fish Barrier	Projects 1-4 Total	Declining Balance $ 36,600,000
5.15	* SUQUAMISH WAY RBT	*$ 9,209,510*	4			x	Klebeal		$ 27,390,490
4.2	DAY ROAD RBT and Park and Ride	$ 9,711,428	2		x				$ 17,679,062
4.02	ADAS WILL RBT/Agatewood	$ 5,465,844	3a		x			$ 33,744,795	$ 12,213,218
3.99	JOHNSON ROAD RBT	$ 5,871,062	1	x					$ 6,342,156
3.97	WEST PORT MADISON RBT	$ 3,486,951	3b		x				$ 2,855,205
3.94	TOTTEN ROAD RBT	$ 7,075,206	4			x	Sam Snyder	See Note	$ (4,220,000)
3.91	MASI SHOP/SANDY HOOK RBT	$ 5,838,829							
3.85	NOLL ROAD	$ 287,797							
3.92	SEMINOLE ROAD	$ 2,277,051							
3.85	SOL VEI/ TOLLEFSON/DELATE	$ 690,713							
3.83	SPORTSMAN CLUB ROAD	$ 3,689,560					Murden		
LOWEST	ACCESS MOD	$ 2,294,319							
TOTAL		**$ 55,898,270**							

*** Design is at 10% level; Cost estimate range: ($8-10mil); mid-point used in table**

Note: Either Suquamish or Totten will be implemented

Day Road – Drainage Option 2 – Pond and Vault

- **Pond on Trust parcel**
- **Stormwater Retaining wall (Approx. 1000SF)**
- **Separated stormwater facilities**



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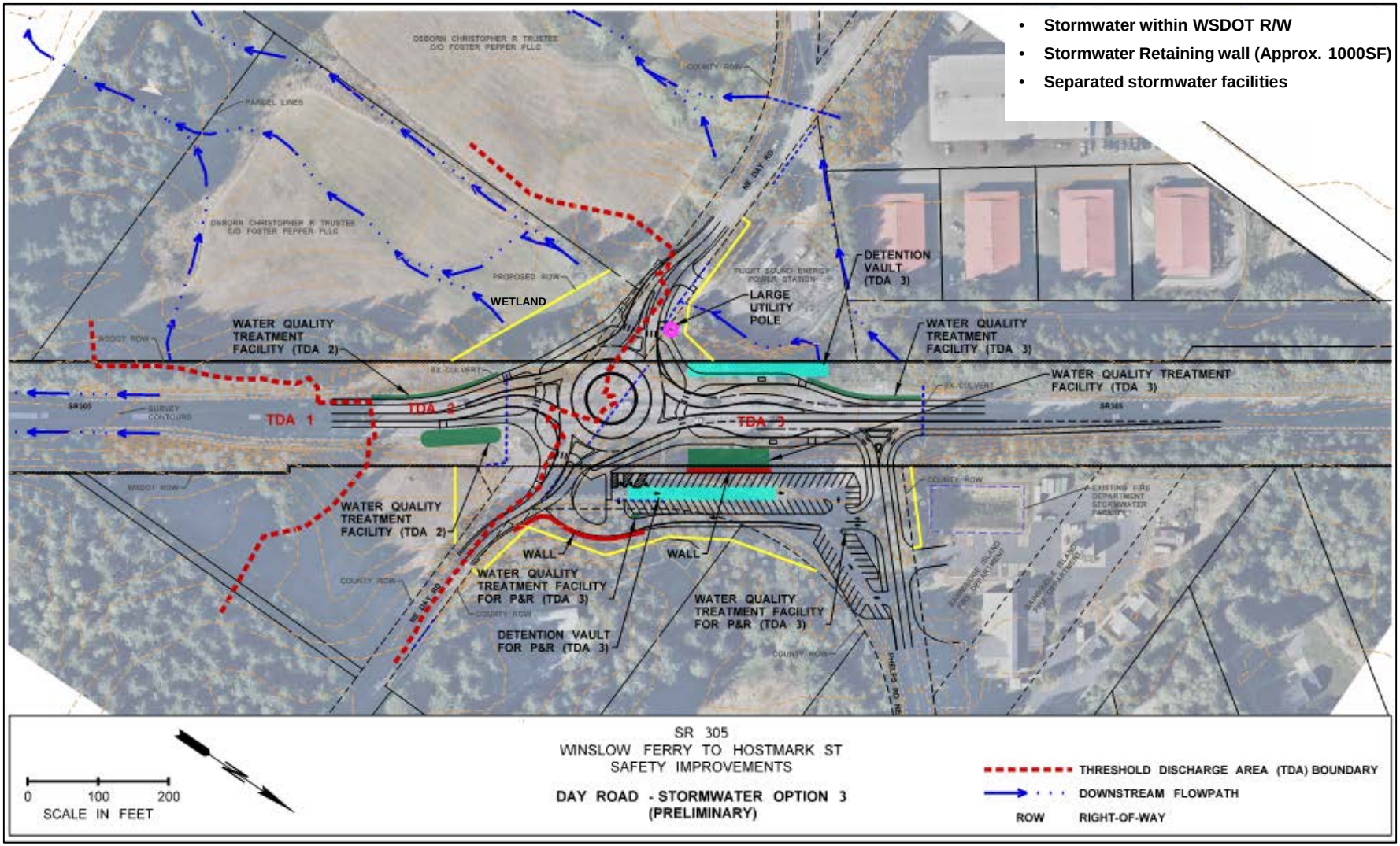
Proposed Delivery Plan Update – Option 2 – Vault and Pond

Performance Score	INTERSECTION	Total Estimated Project Cost	Project	Phase 1	Phase 2	Phase 3	Fish Barrier	Projects 1-4 Total	Declining Balance $ 36,600,000
5.15	* SUQUAMISH WAY RBT	*$ 9,209,510*	4			x	Klebeal		$ 27,390,490
4.2	DAY ROAD RBT and Park and Ride	$ 11,305,252	2		x				$ 16,085,238
4.02	ADAS WILL RBT/Agatewood	$ 5,465,844	3a		x			$ 35,338,619	$ 10,619,394
3.99	JOHNSON ROAD RBT	$ 5,871,062	1	x					$ 4,748,332
3.97	WEST PORT MADISON RBT	$ 3,486,951	3b		x				$ 1,261,381
3.94	TOTTEN ROAD RBT	$ 7,075,206	4			x	Sam Snyder	See Note	$ (5,813,824)
3.91	MASI SHOP/SANDY HOOK RBT	$ 5,838,829							
3.85	NOLL ROAD	$ 287,797							
3.92	SEMINOLE ROAD	$ 2,277,051							
3.85	SOL VEI/ TOLLEFSON/DELATE	$ 690,713							
3.83	SPORTSMAN CLUB ROAD	$ 3,689,560					Murden		
LOWEST	ACCESS MOD	$ 2,294,319							
TOTAL		**$ 57,492,094**							

*** Design is at 10% level; Cost estimate range: ($8-10mil); mid-point used in table**

Note: Either Suquamish or Totten will be implemented

Day Road – Drainage Option 3 – Vaults



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Proposed Delivery Plan Update – Option 3 – Vaults

Performance Score	INTERSECTION	Total Estimated Project Cost	Project	Phase 1	Phase 2	Phase 3	Fish Barrier	Projects 1-4 Total	Declining Balance $ 36,600,000
5.15	* SUQUAMISH WAY RBT	*$ 9,209,510*	4			x	Klebeal		$ 27,390,490
4.2	DAY ROAD RBT and Park and Ride	$ 12,357,038	2		x				$ 15,033,453
4.02	ADAS WILL RBT/Agatewood	$ 5,465,844	3a		x			$ 36,390,404	$ 9,567,609
3.99	JOHNSON ROAD RBT	$ 5,871,062	1	x					$ 3,696,546
3.97	WEST PORT MADISON RBT	$ 3,486,951	3b		x				$ 209,596
3.94	TOTTEN ROAD RBT	$ 7,075,206	4			x	Sam Snyder	See Note	$ (6,865,610)
3.91	MASI SHOP/SANDY HOOK RBT	$ 5,838,829							
3.85	NOLL ROAD	$ 287,797							
3.92	SEMINOLE ROAD	$ 2,277,051							
3.85	SOL VEI/ TOLLEFSON/DELATE	$ 690,713							
3.83	SPORTSMAN CLUB ROAD	$ 3,689,560					Murden		
LOWEST	ACCESS MOD	$ 2,294,319							
TOTAL		**$ 58,543,880**							

*** Design is at 10% level; Cost estimate range: ($8-10mil); mid-point used in table**

Note: Either Suquamish or Totten will be implemented

Group Discussion
&
Recommendation of Preferred Option